

**What is claimed is:**

1. A thermally conductive heat exchange structure comprising a polymer composite comprising a major proportion of fluorocarbon polymer and a minor proportion of boron nitride.
- 5 2. The thermally conductive heat exchange structure of claim 1 wherein said polymer composite comprises from about 2 % to about 40 % by weight of B(N).
3. The thermally conductive heat exchange structure of claim 1 wherein said polymer composite comprises from about 5 % to about 15 % of BN.
- 10 4. The thermally conductive heat exchange structure of claim 2 wherein said polymer composite comprises at least about 60% by weight of fluorocarbon polymer.
5. The thermally conductive heat exchange structure of claim 2 wherein said polymer composite comprises at least about 75% by weight of
- 15 fluorocarbon polymer.
6. The thermally conductive heat exchange structure of claim 2 wherein said polymer composite comprises at least about 85% by weight of fluorocarbon polymer.
7. The thermally conductive heat exchange structure of claim 2 wherein said
- 20 polymer composite comprises from about 85% to about 98% by weight of fluorocarbon polymer.
8. The thermally conductive heat exchange structure of claim 1 wherein said polymer composite has a thermal conductivity of at least about 1.5 (W/m/K).
- 25 9. The thermally conductive heat exchange structure of claim 1 wherein said polymer composite has a thermal conductivity of at least to about 2 (W/m/K).
- 30 10. The thermally conductive heat exchange structure of claim 1 wherein said polymer composite has a thermal conductivity of at least to about 2.5 (W/m/K).

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- 11. The thermally conductive heat exchange structure of claim 1 wherein said polymer composite comprises from about 2 % to about 20 % by weight of B(N).**